

Discrimination at work: a self-fulfilling prophecy?



When we think of discrimination we often think of barriers that minorities face in the hiring process or impediments to receiving equal pay for equal work. We may typically think that this stems from antipathy towards minorities, or what we economists call “taste-based” discrimination. But it may also derive from priors that people have about the average productivity of minorities. If the prior does not match with the minority candidate that’s applying to the job this can also create discrimination. We call this statistical discrimination and though it does not result from animus, it can be just as insidious.

Up until now, the research that has attempted to measure discrimination and explain its effects through either of these two channels, have focused on hiring and wage outcomes. But an important and little studied question is about how discrimination affects workplace productivity, i.e. after the point of hire. In a [study](#), my co-authors and I address this question using data from a large grocery store chain in France.

We find that discrimination does indeed negatively impact the productivity of minority workers, but, importantly, that it can also contribute to a self-fulfilling prophecy. Since discrimination depresses minority productivity, minorities become less productive on average, thus potentially confirming the discriminatory priors of the firm.

We obtained these results by following a population of newly hired cashiers in 34 large grocery stores (think of the French version of Walmart) for six weeks. These cashiers were on six-month contracts and their main task was working a cash register under the supervision of different managers depending on the shift they were working. Importantly, cashiers were assigned to shifts quasi-randomly using a computer-generated scheduling algorithm so they had no control over the managers with whom they worked.

Next, in order to obtain a measure of the bias that cashiers were exposed to each day, we asked managers to take an Implicit Association Test (IAT). This test has been widely used in psychology and more recently in economics. (If you would like to learn more about it and have the courage to take an IAT on any number of themes, such as race, religion, sexuality or even weight, you can go to Harvard’s Implicit project [here](#).)

In the specific test that we adapted to our context, the respondents sorted adjectives describing productive or unproductive employee traits such as “on-time”, “fast”, “lazy”, etc., as well as names that were typically French or North African sounding, “Pierre”, “Ahmed”, etc. The sorting of adjectives and names on a computer screen is done as quickly as possible meaning the test is very hard to game. Hence, through this almost subconscious task, the test gave us a “bias score” indicating the extent that a manager implicitly associates minority employees with productive attributes and vice-versa.

Having obtained this measure of daily discrimination exposure, we then created a whole bunch of performance metrics using administrative data from the stores such as schedules and actual time worked using time-clock data. We also collected “on-the-job” measures such as scanning speed and the time taken between customers. With these data we measured the impact of discrimination on minority productivity by simply testing the difference in these productivity metrics on days when cashiers worked with more biased managers versus when they worked with less biased managers.

We find that when minority cashiers are scheduled to work with more biased managers, they are less likely to show up for work and, when at work, they tend to work fewer minutes after their shift has ended. Also, manager bias makes workers less productive at their registers: They scan items more slowly and take more time between customers. To get an idea of the magnitude of the effect on productivity, we aggregated our performance metrics and found that when workers go from working with unbiased managers to working with biased managers, their overall performance rank drops from the 79th to the 53rd percentile. This corresponds to minorities serving about 14 fewer customers per day.

Having found such striking results we wanted to explore what could be the driving factors, so we surveyed the cashiers shortly after their contract ended. Perhaps surprisingly, we find that minority cashiers did not think that biased managers treated them worse or made them less confident in their abilities. If anything, biased managers were *less* likely to assign minority cashiers to remedial tasks. What we do find is that biased managers simply interact less with minority cashiers. It may be that manager bias means being less comfortable in interacting with minorities, an interpretation consistent with what psychologists call “aversive racism”.

Whatever the reason for this lower level of interaction, it has consequences: We found that interaction is a key determinant of on-the-job performance and that the negative effect on minority productivity grows over the course of the contract. It thus appears that minority workers may learn that biased managers interact and monitor them less or that their effort goes unnoticed, leading these workers to (perhaps rationally) put forth less effort.

Though our study design did not allow us to formally test discrimination’s implications for firing or future hiring within the firm, we attempted to shed light on whether discrimination might affect firm hiring policies. We find that, overall, minority and non-minority productivity is statistically indistinguishable, but remember that when minority workers work on days with unbiased managers they are actually *more* productive. This suggests that the firm may set a more stringent hiring threshold for minorities in order to receive comparable productivity, on average. Put another way, the firm may feel it has to hire observably “better” minority employees because, overall, these minorities perform the same as non-minority workers. But this is only because the existing discrimination in the store depresses minority output in the first place! Thus, manager discrimination may feed into statistical discrimination in a firm’s hiring policy.

The take-away from our work should be that discrimination can cause unequal outcomes in the workplace well after the point of hiring and that the effects may stem from much more sophisticated behaviours than may have generally been thought. So if you are an entrepreneur, a manager or even a CEO it might be worth it to think hard about how discrimination may be *at work* — disenfranchising your minority employees and subtly chipping away at your bottom line.



Notes:

- This blog post is based on the author’s paper [Discrimination as a Self-Fulfilling Prophecy: Evidence from French Grocery Stores](#), co-authored with Amanda Pallais and William Pariente, *The Quarterly Journal of Economics*, August 2017.
- The post gives the views of its authors, not the position of LSE Business Review or the London School of Economics.
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